Advancing the GAIN Concept

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Current System Data Flow
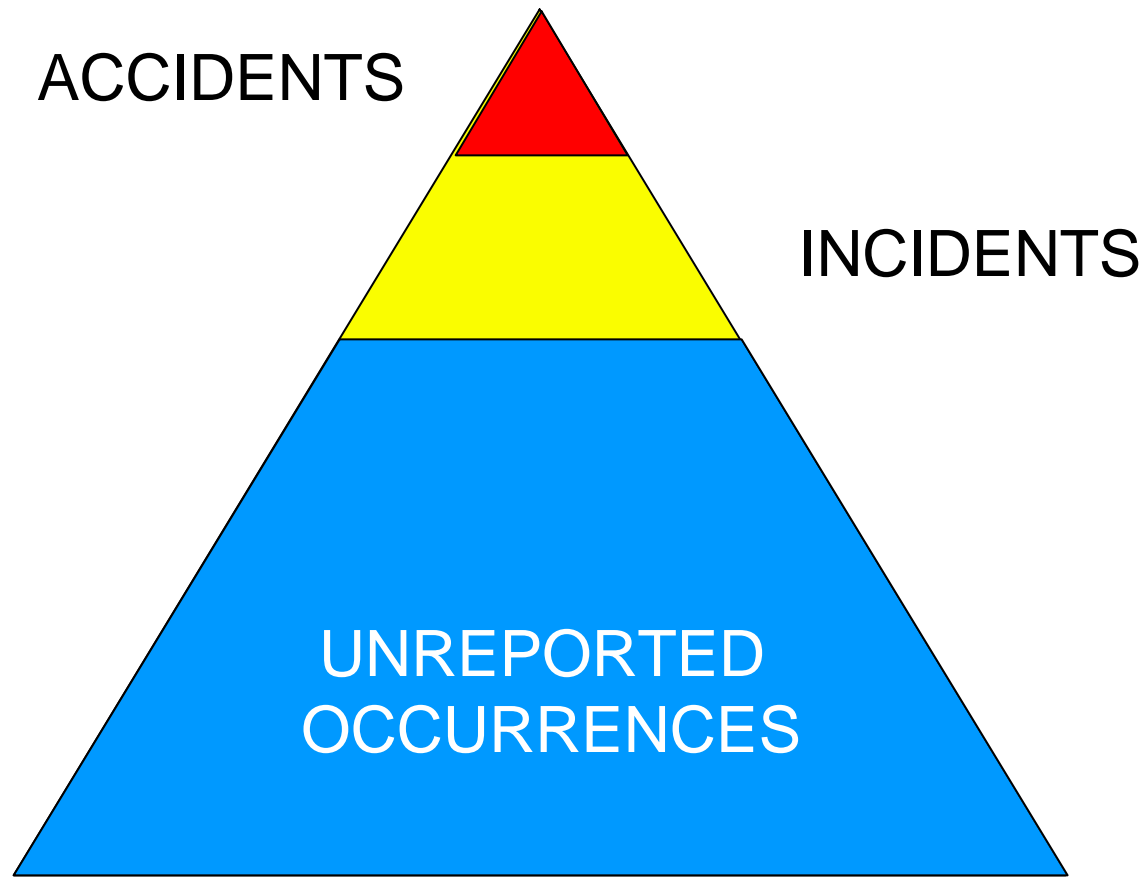
**Almost all Data
is Lost Forever**

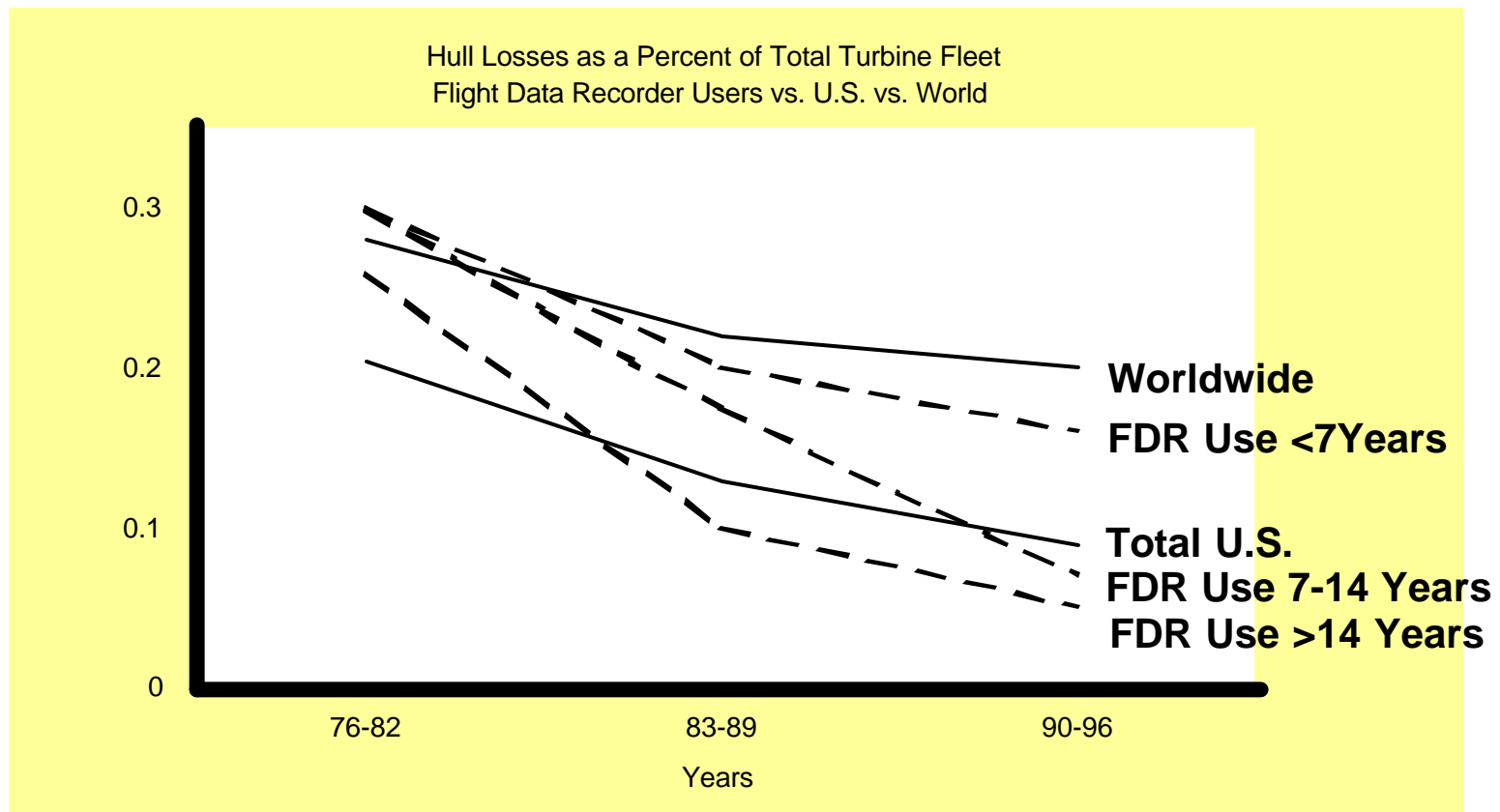**Currently Only a Minute
Portion of Data is
Collected and Analyzed**

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Heinrich Pyramid

ACCIDENTS

INCIDENTS

UNREPORTED
OCCURRENCES

Benefits of FDR Use

Hull Losses as a Percent of Total Turbine Fleet
Flight Data Recorder Users vs. U.S. vs. World

- Worldwide
- FDR Use <7Years
- Total U.S.
- FDR Use 7-14 Years
- FDR Use >14 Years

0.3
0.2
0.1
0

76-82   83-89   90-96
Years

Sources: Total U.S.- FAA NASDAC
         Other - Skandia Insurance Co. Ltd.

Fix the Person or the System?
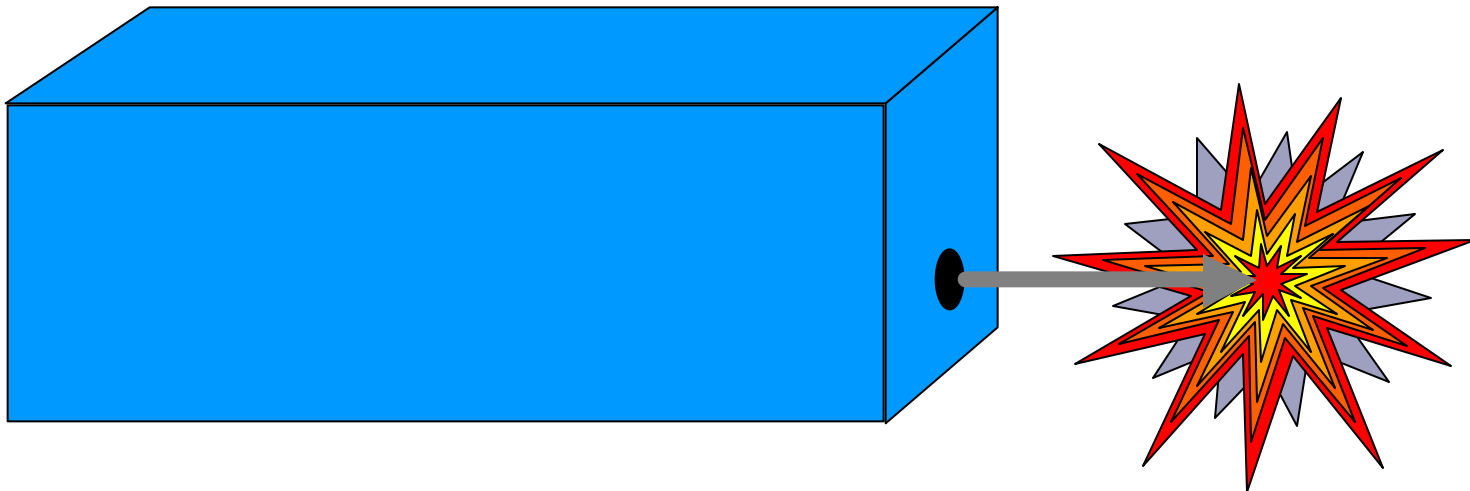
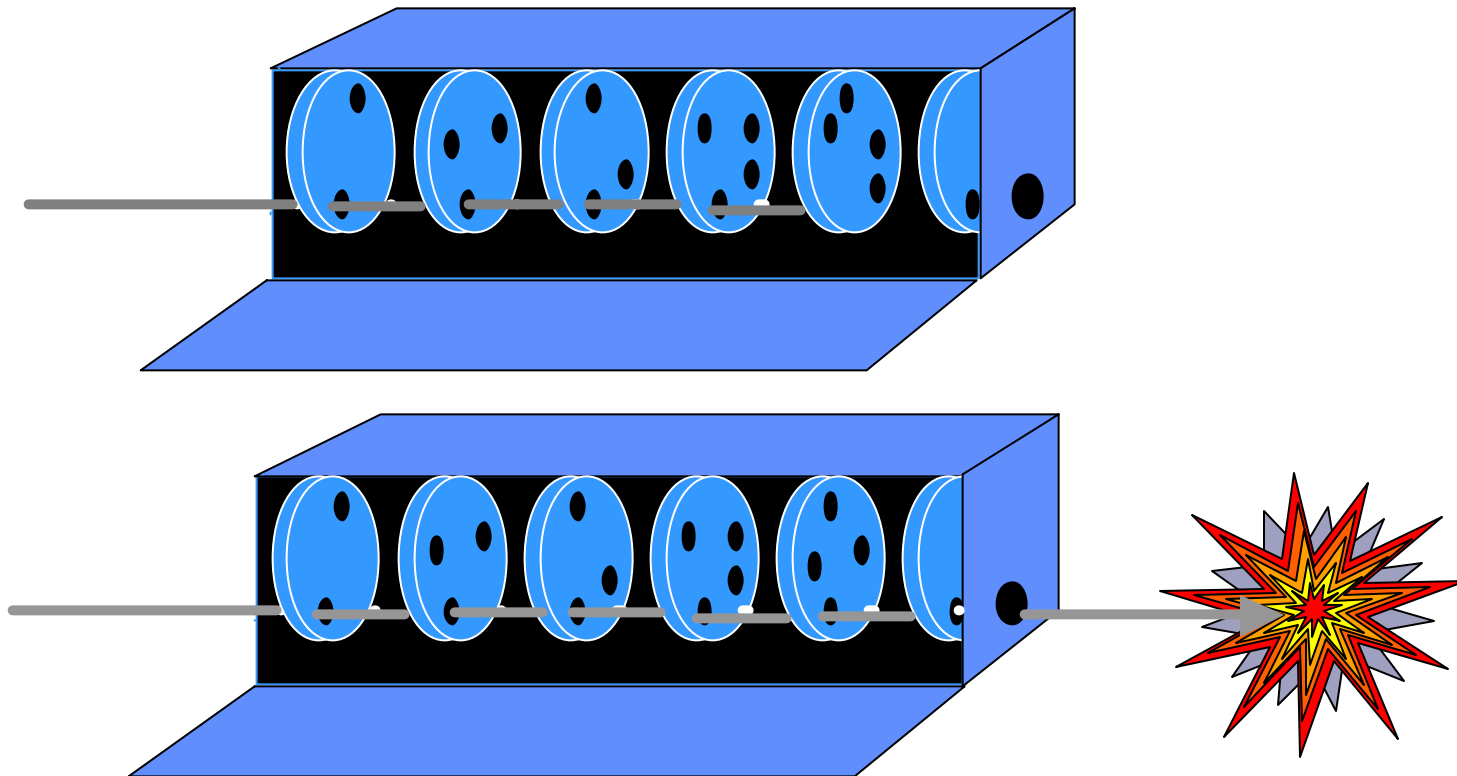**Is the Person
Clumsy?**

**Or Is the
Problem . . .**
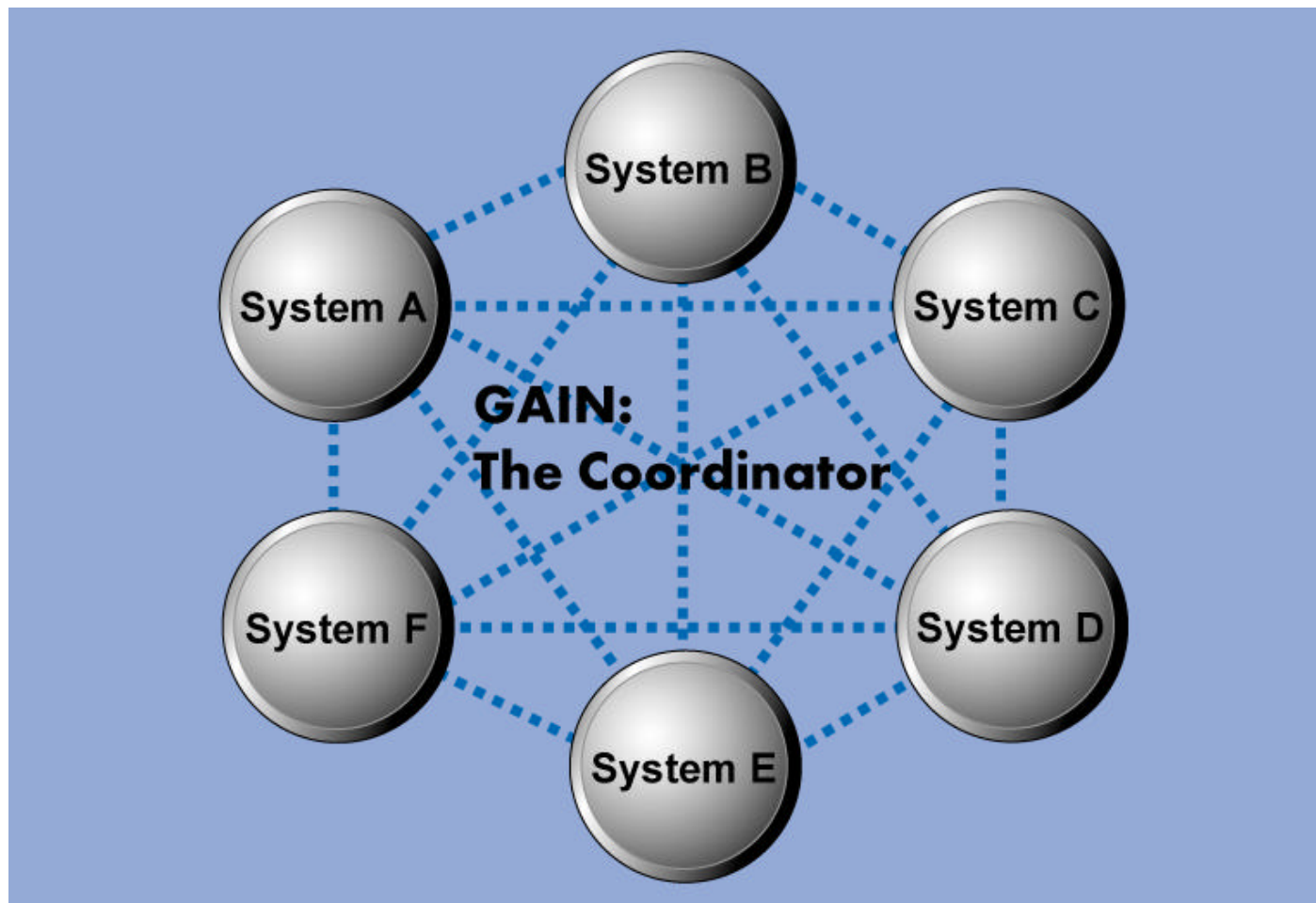
The Step???

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Is This Light Random?

Accidents Result From a Combination of Events

Global Aviation Information Network: The Concept

What is GAIN ?

GAIN Is:

- **Evolutionary**
- **Inclusive and encourages mentoring**
- **Built on collective needs**
- **Expanding and enhancing existing systems**
- **An international cooperative effort**

GAIN Is NOT:

- **A single centralized database**
- **A regulatory or enforcement program**
- **Mandatory**
- **The sharing of raw data**
- **A replacement for existing systems**
- **The single solution for improving aviation safety**

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Obstacles that Block the Flow of Information

Concerns About

- **Public Disclosure**

- **Job Sanctions/Enforcement**

- **Criminal Sanctions**

- **Civil Litigation**

Removing U.S. Obstacles

- **FAA Reauthorization, 1996**
  Prohibits public disclosure of voluntarily provided aviation safety information

- **President Clinton, January 2000**
  Announced Aviation Safety Action Programs (ASAP) for voluntary pilot reporting

- **FAA Reauthorization, 2000**
  Requires FAA to issue NPRM protecting airlines and their employees from enforcement actions for regulatory violations discovered from voluntary reporting programs

Removing Int'l Obstacles

- **ICAO 32nd Assembly, 1998**
  Resolution to improve safety through enhanced collection, analysis and dissemination of safety information

- **ICAO AIG, September '99**
  Approved recommendation to Annex 13 that States should establish non-punitive incident reporting systems, promote establishment of safety information sharing networks, and facilitate free exchange of information on potential safety deficiencies

Others Who Are Interested

- **U.S. Transportation Department**
  - **Maritime, Rails, Highways, Pipelines**

- **Critical Infrastructure Assurance Office (CIAO)**
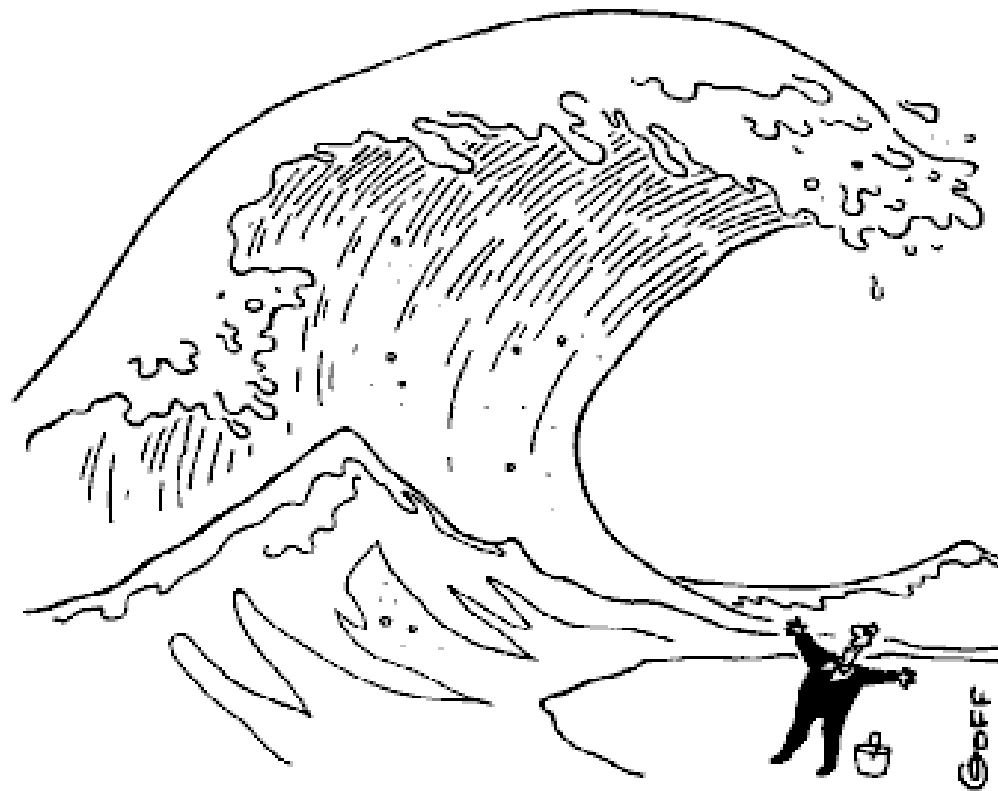
- **Health Care Industry**

Challenges

Improved Analytical Tools

Legal Issues

As we begin to get over the first hurdle, we must start working on the second.
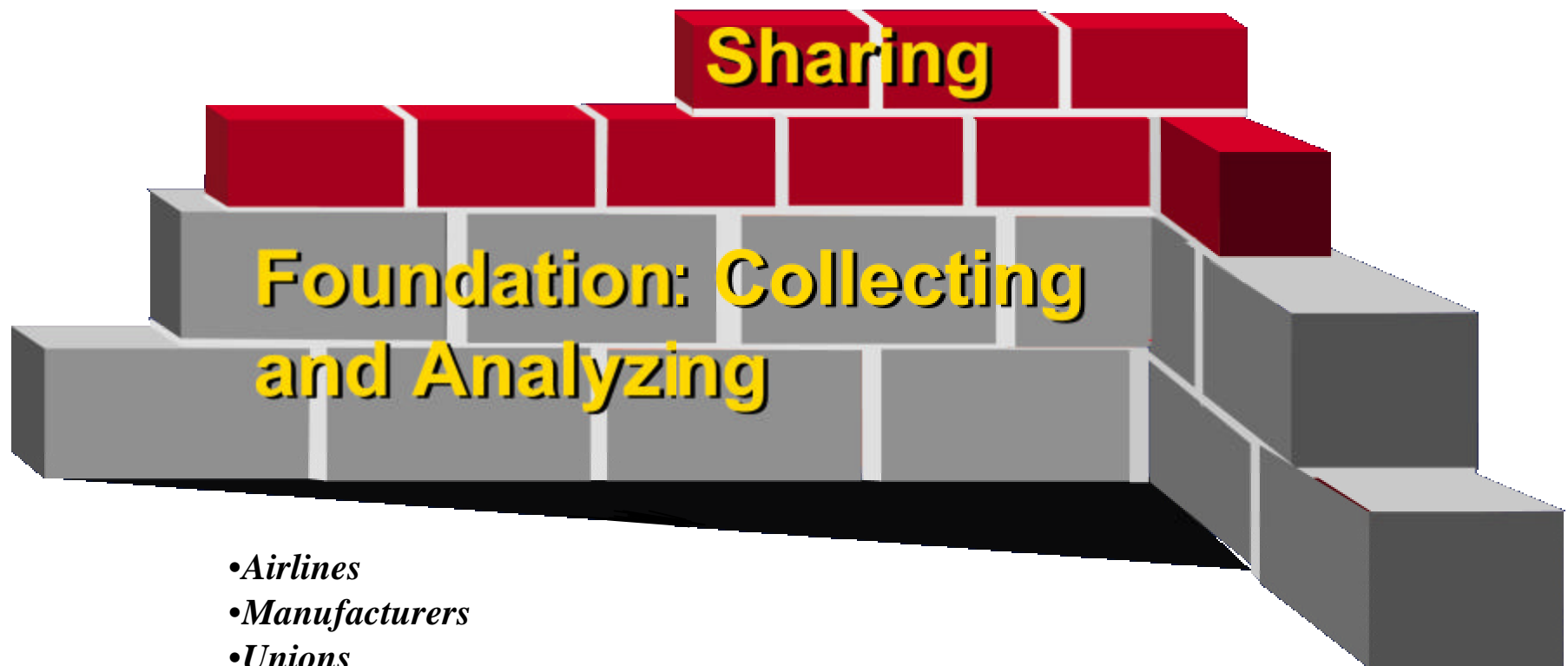
Information Overload

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"EUREKA! MORE INFORMATION!"

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Many Have Already Begun The Process

Sharing

Foundation: Collecting and Analyzing

- *Airlines*
- *Manufacturers*
- *Unions*
- *Government*

Three Domains For GAIN

Flight Deck

ATC

Maintenance

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FAA Administrator
Jane Garvey:

"GAIN is one of our best hopes
for enhancing aviation safety
in the next century."

GAIN III World Conference
November 1998